Luis Espino, Software Engineer

Luisespinocervantes@gmail.com • (650) 465-9992 • luwuis.github.io/Portfolio/

Education: University of California, Irvine **June 2022**

B.S. in Computer Science: Visual Computing **GPA: 3.18** (Dean's List UC Irvine • 5 quarters)

Course Work: Software Design • Game Systems and Design • Data Management • Computer Vision & Graphics

---

Areas of Expertise:

✓Python	✓Node.js	✓SQL	✓WebGL	✓Spanish Biliterate
✓C/C++	✓IonicJS/Angular	✓Linux	✓MatLab	✓WebDev
✓JavaScript	✓A-Frame	✓R	✓OpenCV	✓Agile & DevOps
✓HTML/CSS	✓TypeScript	✓Microsoft Office	✓Point Cloud Library	✓Data Analysis

---

Work Experience:

Autonomous Vehicle Operator: Zoox **October 2022-Present**

Adeptly monitor L3 autonomous vehicle testing while skillfully commanding and troubleshooting vehicle software and hardware in real-time using the **Linux Shell**. Ensure the smooth deployment of software for vehicles to maintain optimal performance. Meticulously record and report substantial vehicle data performance.

Instructor: Juni Learning **April 2022-October 2022**

Taught K-12 students computer science concepts using **Python** through engaging one-on-one remote sessions.

Office Intern: San Mateo County Health Clinic **June 2018-September 2018**

Served as a professional front desk attendant and demonstrated excellence in visit facilitation, personal information updates, and administrative duties, including phone/fax management, and waiting room care.

Projects:

Water Simulator **April 2022-June 2022**

Developed an interactive **WebGL** animation that simulates a water pond with 3D objects that interact with it, featuring realistic lighting and visual effects.

- Introduced visual properties, (**Blinn-Phong, reflection, and fresnel effect**) to enhance realism on the shader.
- Adapted the simulation into a underlined webpage using **JavaScript** and **HTML**, making it available for public interaction.
- Conducted in-depth research on water behavior and implemented equivalent motions in **WebGL**, resulting in an accurate and engaging simulation.

Image Recognition Software **January 2022-February 2022**

Produced an **AI** algorithm that utilizes positive and negative picture samples to learn an object's Histogram of Gradient Orientations, allowing for the identification of objects in images.

- Implemented the algorithm for learning an object's features from sample images.
- Composed the software on a **Jupyter** notebook utilizing **Python**, **Matplotlib**, and **Numpy** libraries, achieving a success rate of 95% in recognizing specific objects in pictures.
- Conducted extensive testing, debugging, and finalization to ensure optimal performance and functionality of the software.

Spotify Browser **February 2022**

Assembled a real-time search **website** using **Angular** that enables users to search for music on Spotify by artist, album, or track. The search results are displayed with corresponding metadata and linked to the relevant Spotify page.

- Developed a responsive webpage using **Angular** to browse and search for music on Spotify's **API**, allowing for real-time searches and custom page creation based on user queries.
- Created engaging front-end features using **HTML, CSS**, and **Angular** components to improve the user experience and interaction with the music search engine.
- Built a secure back-end **API** using **Express.js** and **OAuth** protocol to handle user search requests, ensuring efficient and secure data retrieval from Spotify's database.
- Utilized responsive design **Bootstrap** libraries to ensure optimal performance and seamless user experience across various devices, including **desktop** and **mobile**.

Vaccine Dash (Videogame) Website **September 2021-December 2021**

Collaborated on a single-player adventure horror web game, tasking players with finding vaccines in a dark, covid-ridden hospital.

- Orchestrated game mechanics and sensory elements (sound and graphics), optimizing the player experience.
- Designed and implemented game narrative, enhancing player immersion.
- Presented game in a mock product pitch, showcasing key features and potential for marketability.